

PATENT

Atty. Dkt. No. AMAT/6452.P1/CPI/LB/PJS

REMARKS

This is intended as a full and complete response to the Office Action dated April 1, 2005, having a shortened statutory period for response set to expire on July 1, 2005. Claims 1-32 remain pending in the application and are shown above. Claims 1-14 and 17-21 are indicated to be allowable by the Examiner. Claims 22, 24-29, and 31 stand rejected by the Examiner. Claims 15, 16, and 23 are objected to by the Examiner. Claims 23, 30, and 32 stand objected to as being dependent upon rejected base claim, but would be allowable if rewritten in independent form. Applicants submit new claims 33-35 for consideration by the Examiner. Applicant have rewritten claims 23 and 32 in independent form as new claims 33 and 35 respectively. Claim 30 has been rewritten as new claim 34 depending on claim 33.

Claims 13, 15, 25, 26, and 28 have been amended. These amendments are not presented to distinguish a reference, thus, the claims as amended are entitled to a full range of equivalents if not previously amended to distinguish a reference. Reconsideration of the rejected claims is requested for reasons presented below.

In the specification, the paragraphs [0001] and [0047] have been amended as described herein.

Drawings Objections

The Examiner has pointed out that reference sign 428 mentioned in paragraph [0047] is not supported by the drawings. Applicant respectfully submits that reference sign 428 mentioned in paragraph [0047] is a typographical error which has been amended as reference sign 448. Therefore, withdrawal of the objection is respectfully requested.

Specification Objections

The Examiner requires that the patent number for the parent application be inserted at paragraph [0001]. Applicant have amended paragraph [0001] to include the patent number of the parent application. Therefore, withdrawal of the objection is respectfully requested.

PATENT

Atty. Dkt. No. AMAT/6452.P1/CP/LB/PJS

Claim Objections

Claims 15, 16, 28, and 29 stand objected by the Examiner because of informalities and would be allowable if rewritten to overcome the claim objection. Applicant has amended claims 15 and 28 to overcome the claim objection and claims 16 and 29 are dependent claims of claims 15 and 28 respectively. Therefore, claims 15, 16, 28, and 29 are now believed to be allowable. Withdrawal of the objection is respectfully requested.

Claim Rejections – 35 U.S.C. § 112

Claims 24-29 stand rejected under 35 U.S.C. § 112, second paragraph. The Examiner indicates that claims 24-29 would be allowable if rewritten to overcome the 112 rejection. Applicant submits that claim 22, on which claims 24-29 are dependent, has been amended and sufficient antecedent bases for "the center pad" and "the disk body" are provided. Thus, the § 112 rejection is overcome. Claims 24-29 are now believed to be allowable. Therefore, withdrawal of the rejection is respectfully requested.

Claim Rejections – 35 U.S.C. § 102

Claims 22 and 31 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Tepman* (U.S. Patent No. 5,223,112, hereinafter *Tepman*). The Examiner asserts that *Tepman* discloses the subject matter as recited in claims 22 and 31. Applicant respectfully responds to the rejection.

Tepman discloses a removable shutter apparatus for a deposition or etching apparatus including a shuttering mechanism disposed within a processing chamber and adapted to carry a shutter plate between a retracted position and an extended position wherein it is engaged by a lifting assembly and moved into a position closing the normal plating aperture as if it were a substrate to be processed (Abstract). However, *Tepman* does not teach each and every element as set forth in claims 22 and 31.

Regarding claim 22, *Tepman* does not teach, show, or suggest a physical vapor deposition chamber comprising a chamber body having sidewalls and a bottom defining

PATENT

Atty. Dkt. No. AMAT/6452.P1/CPV/LB/PJS

a process volume, wherein a slot is formed through one of the sidewalls, a shutter disk mechanism at least partially disposed in the process volume and having a robot blade and a shutter disk engaged by an alignment feature, the alignment feature disposed along a center axis of the shutter disk, and a housing sealingly coupled to the chamber body, wherein the shutter disk has a lower surface comprising a center pad near the center axis, and a lip extending along an outer edge of the shutter disk and extending below the center pad, as recited in claim 22, and claims dependent thereon. Withdrawal of this rejection is respectfully requested.

Regarding claim 31, *Tepman* does not teach, show, or suggest spacing a shutter disk vertically from a substrate support, moving a robot blade between the substrate support and the shutter disk, and engaging the shutter disk and the robot blade by engaging a post disposed on the robot blade by coupling to a post disposed on the robot blade with an alignment feature disposed along a center axis of the shutter disk, as recited in claim 22, and claims dependent thereon. Withdrawal of the rejection is respectfully requested.

In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed.

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicant's disclosure than the primary references cited in the office action. Therefore, Applicant believes that a detailed discussion of the secondary references is not necessary for a full and complete response to this office action.

PATENT

Atty. Dkt. No. AMAT/6452.P1/CPI/LB/PJS

Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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